

**REMARKS/ARGUMENTS**

Applicant has carefully reviewed and considered the Final Office Action mailed on March 30, 2011, and the references cited therewith.

Claims 1, 12, 22, 30, and 36 are amended, claims 2-4 are canceled, and no claims are added; as a result, claims 1 and 5-38 are now pending in this application.

*Examiner Interview*

Applicant thanks Examiner Woods and Supervisor O'Connor for participating in a telephone interview on June 30, 2011. During the interview, Applicant and the Examiner discussed the § 112, § 102, and § 103 claim rejections in the Office Action mailed on March 30, 2011 and proposed amendments to the independent claims. Although no agreement was reached on specific claim amendment language, Applicant believes the discussion was helpful in moving this application forward toward allowance.

*§ 112 Rejection of the Claims*

Claims 1, 12, 22-24, 30, and 36 were rejected under 35 USC § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Applicant respectfully traverses the rejection as follows.

Applicant has amended claims 1 and 12 to recite "a number of sensors" and "the number of sensors". Therefore, Applicant respectfully requests reconsideration and withdrawal of the § 112, second paragraph rejection of claims 1, 12, 22-24, 30, and 36.

§ 102 Rejection of the Claims

Claims 1 and 8 were rejected under 35 USC §102(b) as being anticipated by Ciccolo (U.S. Patent No. 6,614,348). Applicant respectfully traverses the rejection as follows.

Applicant's amended independent claim 1 recites:

monitoring, by a computing device having a computer processor and computer-readable code stored on a computer-readable medium and executable by the computer processor, a number of sensors activated by an individual, wherein the number of sensors are located in a dwelling of the individual;

recording activations of the number of sensors on the computing device in communication with the number of sensors;

determining a behavior routine of the individual with the computing device based on recorded activations of the number of sensors, wherein a number of patterns of a number of sensor activations are identified that indicate the individual performing a number of activities that make up the behavior routine;

identifying a change in the behavior routine with the computing device based on the analysis of the recorded sensor activations;

determining, with the computing device, a confidence level of the identification of the change in the behavior routine based on a comparison of sensor activations of a first group of the number of sensors with sensor activations of one or more groups of the number of sensors; and

initiating contact to a third party on a hierarchical list of third party contacts with the computing device in response to identifying the change in the behavior routine, wherein the third party on the hierarchical list to contact is selected based on a level of change in the behaviour routine and the confidence level.

From Applicant's review of the Ciccolo reference, Ciccolo appears to teach a system for monitoring behavior patterns with sensors that detect behavior patterns and activating a response based on the detected behavior pattern. (Column 2, lines 66 to column 3, line 7). The method in Ciccolo can compare a detected behavior pattern to a standard behavior pattern (Column 3, lines 12-17), but does not appear to assign a confidence level to the detected behavior pattern. Ciccolo does not teach "determining, with the computing device, a confidence level of the identification of the change in the behavior routine based on a comparison of sensor activations of a

first group of the number of sensors with sensor activations of one or more groups of the number of sensors”, as recited in amended independent claim 1.

Accordingly, Applicant respectfully submits that the Ciccolo reference does not teach each and every element of independent claim 1, as amended.

As such, Applicant respectfully requests reconsideration and withdrawal of the § 103 rejections of independent claim 1, as well as those claims which depend therefrom.

*§103 Rejection of the Claims*

Claims 5, 12-15, 20-21, 33-34, 36 and 37 were rejected under 35 USC § 103(a) as being unpatentable over Ciccolo (U.S. Patent No. 6,614,348) in view of Rogers (U.S. Patent No. 6,957,107). Applicant respectfully traverses the rejection as follow.

Claim 5 depends from independent claim 1. As described above, Applicant respectfully submits that independent claim 1 is in condition for allowance. Applicant respectfully submits that the Rogers reference does not cure the deficiencies of the Ciccolo reference. Rogers appears to teach a method and apparatus for communicating with and monitoring the operation of a device implanted within a patient (Abstract). Rogers does not appear to teach “determining, with the computing device, a confidence level of the identification of the change in the behavior routine based on a comparison of sensor activations of a first group of the number of sensors with sensor activations of one or more groups of the number of sensors”, as recited in amended independent claim 1.

With regard to Applicant’s independent claims 12, 30, and 36, Applicant’s amended independent claim 12 recites:

recording, by a computing device having a computer processor and computer-readable code stored on a computer-readable medium and executable by the computer processor, data counts from a number of sensors activated by an individual during a time period on the computing device in communication with the number of sensors to determine a behavior routine of the individual, wherein the number of sensors are located in a dwelling of

the individual and a number of patterns of the data counts are identified that indicate the individual performing a number of activities that make up the behavior routine;

identifying statistical changes in the data counts relative to expected data counts during the time period with the computing device;

determining, with the computing device, a confidence level of the statistical changes in the data counts relative to expected data counts based on a comparison of data counts from a first group of the number of sensors with data counts from one or more groups of the number of sensors; and

initiating automated contact to a third party on a hierarchical third party list with the computing device identified by the individual when a statistical change exceeds a statistical threshold value, wherein the third party on the hierarchical list to contact is selected based on a level of statistical change and the confidence level.

Applicant's amended independent claim 30 recites:

means for signaling that a number of sensors have been activated by an individual during activities of daily living, wherein the number of sensors include sensors located in a dwelling of the individual;

a receiver to receive signals, indicating that the number of sensors have been activated;

a tabulation unit including a computing device to tabulate the number of received signals;

an analysis unit including a computing device to analyze the tabulated signals to determine a behavior routine, identify changes in the behavior routine, and determine a confidence level of the identified changes in the behavior routine based on a comparison of the number of received signals from a first group of the number of sensors with the number of received signals from one or more groups of the number of sensors, wherein a number of patterns of a number of sensor activations are identified that indicate the individual performing the activities of daily living that make up the behavior routine; and

a contacting unit including a computing device to initiate contact with a third party selected from a hierarchical list of third party contacts when the analysis unit identifies a defined level change in the behavior routine.

Applicant's amended independent claim 36 recites:

a receiver to receive activation signals from a number of sensors activated by an individual during activities of daily living, wherein the number of sensors include sensors located in a dwelling of the individual;

a processing unit including a computing device to tabulate the received signals to determine a behavior routine, identify changes in the

behavior routine, and determine a confidence level of the identified changes in the behavior routine based on a comparison of the number of received signals from a first group of the number of sensors with the number of received signals from one or more groups of the number of sensors, wherein a number of patterns of the received activation signals are identified that indicate the individual performing the activities of daily living that make up a behavior routine; and

a contacting unit to initiate contact with a third party selected from a hierarchical list of third party contacts based on a defined level of change in a behavior routine and the confidence level when directed by the processing unit.

From Applicant's review of the Ciccolo reference, Ciccolo appears to teach a system for monitoring behavior patterns with sensors that detect behavior patterns and activating a response based on the detected behavior pattern. (Column 2, lines 66 to column 3, line 7). The method in Ciccolo appears to compare a detected behavior pattern to a standard behavior pattern (Column 3, lines 12-17), but does not appear to assign a confidence level to the detected behavior pattern. Ciccolo does not appear to teach or suggest "determining, with the computing device, a confidence level of the statistical changes in the data counts relative to expected data counts based on a comparison of data counts from a first group of the number of sensors with data counts from one or more groups of the number of sensors", as recited in amended independent claim 12 or "determine a confidence level of the identified changes in the behavior routine based on a comparison of the number of received signals from a first group of the number of sensors with the number of received signals from one or more groups of the number of sensors", as recited in amended independent claims 30 and 36.

And Applicant respectfully submits that the Rogers reference does not cure the deficiencies of the DeLuca reference. Rogers appears to teach a method and apparatus for communicating with and monitoring the operation of a device implanted within a patient (Abstract). Rogers does not teach or suggest assigning a confidence level to the statistical changes in the data counts relative to expected data counts.

Accordingly, Applicant respectfully submits that the DeLuca and Rogers references do not teach or suggest, either individually or in combination, “assigning a confidence level to the statistical changes in the data counts relative to expected data counts”, as recited in amended independent claim 12 or “determine a confidence level of the identified changes in the behavior routine based on a comparison of the number of received signals from a first group of the number of sensors with the number of received signals from one or more groups of the number of sensors”, as recited in amended independent claims 30 and 36.

As such, Applicant respectfully requests reconsideration and withdrawal of the § 103 rejections of dependent claim 5 and independent claims 12, 30, and 36, as well as those claims which depend therefrom.

Claims 16, 31, and 32 were rejected under 35 USC § 103(a) as being unpatentable over Ciccolo (U.S. Patent No. 6,614,348) in view of Rogers (U.S. Patent No. 6,957,107) further in view of DeLuca (U.S. Patent No. 6,440,067). Applicant respectfully traverses the rejection as follows.

Claim 16 depends from independent claim 12 and claims 31 and 32 depend from independent claim 30. As described above, Applicant respectfully submits that independent claims 12 and 30 are in condition for allowance. Applicant respectfully submits that the DeLuca reference does not cure the deficiencies of the Ciccolo and Rogers references. DeLuca appears to teach a method of extracting signals from sensors attached to muscles and using the signals to determine a normative data base indicative of a given functional activity. (Column 2, lines 25-40).

Accordingly, Applicant respectfully submits that the Ciccolo, Rogers, and DeLuca references do not teach or suggest, either individually or in combination, “determining, with the computing device, a confidence level of the statistical changes in the data counts relative to expected data counts based on a comparison of data counts from a first group of the number of sensors with data counts from one or more groups of the number of sensors”, as recited in amended independent claim 12

or “determine a confidence level of the identified changes in the behavior routine based on a comparison of the number of received signals from a first group of the number of sensors with the number of received signals from one or more groups of the number of sensors”, as recited in amended independent claim 30.

As such, Applicant respectfully requests reconsideration and withdrawal of the § 103 rejections of dependent claim 16, which depends from independent claim 12, and dependent claims 31 and 32, which depend from independent claim 30.

Claims 6, 7, 9, 10, and 11 were rejected under 35 USC § 103(a) as being unpatentable over Ciccolo (U.S. Patent No. 6,614,348) and in view of Nichols (U.S. Patent No. 5,330,513). ). Applicant respectfully traverses the rejection as follows.

Claims 6, 7, 9, 10, and 11 depend from independent claim 1. As described above, Applicant respectfully submits that independent claim 1 is in condition for allowance. Applicant respectfully submits that the Nichols reference does not cure the deficiencies of the Ciccolo reference. Nichols appears to teach a system that can send data from the pacemaker to a computing device, where the computing device can derive an optimized pacing rate for an individual. (Column 4, lines 26-42).

Accordingly, Applicant respectfully submits that the Ciccolo and Nichols references do not teach or suggest, either individually or in combination, “determining, with the computing device, a confidence level of the identification of the change in the behavior routine based on a comparison of sensor activations of a first group of the number of sensors with sensor activations of one or more groups of the number of sensors”, as recited in amended independent claim 1.

As such, Applicant respectfully requests reconsideration and withdrawal of the § 103 rejections of dependent claims 6, 7, 9, 10, and 11, which depend from independent claim 1.

Claim 38 was rejected under 35 USC § 103(a) as being unpatentable over Ciccolo (U.S. Patent No. 6,614,348) in view of Rogers (U.S. Patent No. 6,957,107)

further in view of Nichols (U.S. Patent No. 5,330,513). ). Applicant respectfully traverses the rejection as follows.

Claim 38 depends from independent claim 36. As described above, Applicant respectfully submits that independent claim 36 is in condition for allowance. Applicant respectfully submits that the Nichols reference does not cure the deficiencies of the Ciccolo and Rogers references. Nichols appears to teach a system that can send data from the pacemaker to a computing device, where the computing device can derive an optimized pacing rate for an individual. (Column 4, lines 26-42).

Accordingly, Applicant respectfully submits that the Ciccolo, Rogers, and Nichols references do not teach or suggest, either individually or in combination, “determine a confidence level of the identified changes in the behavior routine based on a comparison of the number of received signals from a first group of the number of sensors with the number of received signals from one or more groups of the number of sensors”, as recited in amended independent claim 36.

As such, Applicant respectfully requests reconsideration and withdrawal of the § 103 rejections of dependent claim 38, which depends from independent claim 36.

Claims 17 and 35 were rejected under 35 USC § 103(a) as being unpatentable over Ciccolo (U.S. Patent No. 6,614,348) in view of Rogers (U.S. Patent No. 6,957,107) and further in view of Official Notice. Applicant respectfully traverses the rejection as follows.

Claims 17 and 35 depend from independent claims 12 and 30, respectively. As described above, Applicant respectfully submits that independent claims 12 and 30 are in condition for allowance.

With regard to the Official Notice, Applicant disputes Examiner’s use of Official Notice of the elements of the above referenced claims. Applicant respectfully requests that should Examiner continue to assert official notice, it is

requested that Examiner provide support for such subject matter in the form of one or more references. Recording data counts from a sensor with Boolean logic is not old and well-known to one of ordinary skill in the art when used in the context of the independent claims from which they depend. The above reference elements of the claims are not a well known and old part of recording data counts from sensors activated by an individual during a time period on the computing device in communication with the sensors to determine a behavior routine of the individual and an analysis unit to analyze the tabulated signals to determine a behavior routine and identify changes in the behavior routine, as recited in independent claims 12 and 30. Also, the Official Notice recited does not cure the deficiencies of the Ciccolo and Rogers references regarding these elements among other details as claimed in independent claims 12 and 30, as amended.

Accordingly, Applicant respectfully submits that the Ciccolo and Rogers references and the Official Notice do not teach or suggest, either individually or in combination, “determining, with the computing device, a confidence level of the statistical changes in the data counts relative to expected data counts based on a comparison of data counts from a first group of the number of sensors with data counts from one or more groups of the number of sensors”, as recited in amended independent claim 12 or “determine a confidence level of the identified changes in the behavior routine based on a comparison of the number of received signals from a first group of the number of sensors with the number of received signals from one or more groups of the number of sensors”, as recited in amended independent claim 30.

As such, Applicant respectfully requests reconsideration and withdrawal of the § 103 rejections of dependent claims 17 and 25, which depend from independent claims 12 and 30, respectively.

Claims 18 and 19 were rejected under 35 USC § 103(a) as being unpatentable over Ciccolo (U.S. Patent No. 6,614,348) in view of Rogers (U.S.

Patent No. 6,957,107) and further in view of Kutzik (U.S. Patent No. 6,108,685).

Applicant respectfully traverses the rejection as follows.

Claims 18-19 depend from independent claim 12. As described above, Applicant respectfully submits that independent claim 12 is in condition for allowance. Applicant respectfully submits that the Kutzik reference does not cure the deficiencies of the Ciccolo and Rogers references. Kutzik appears to teach a system for monitoring a user in a user living area doing a daily living activity and providing information representative of the daily living activity to the system controller (Abstract).

Accordingly, Applicant respectfully submits that the Ciccolo, Rogers, and Kutzik references do not teach or suggest, either individually or in combination, “determining, with the computing device, a confidence level of the statistical changes in the data counts relative to expected data counts based on a comparison of data counts from a first group of the number of sensors with data counts from one or more groups of the number of sensors”, as recited in amended independent claim 12.

As such, Applicant respectfully requests reconsideration and withdrawal of the § 103 rejections of dependent claims 18-19, which depend from independent claim 12.

Claims 22-27 and 29 were rejected under 35 USC § 103(a) as being unpatentable over Rogers (U.S. Patent No. 6,957,107) in view of Ciccolo (U.S. Patent No. 6,614, 348). Applicant respectfully traverses the rejection as follow.

Applicant’s amended independent claim 22 recites:

sensing data counts associated with a number of activities of daily living for an individual, wherein the data counts are from activations of a number of sensors that are located in a dwelling of an individual;

determining a behavior routine of the individual based on the sensed data counts, wherein a number of patterns of the sensed data counts are identified that indicate the individual performing the number of activities of daily living that make up the behavior routine;

determining a statistical change in the data counts relative to expected data counts for the activity of daily living;

- identifying when the statistical change in the data counts relative expected data counts exceed a statistical threshold value;
- determining a confidence level of the statistical change in the data counts relative expected data counts based on a comparison of data counts from a first group of the number of sensors with data counts from one or more groups of the number of sensors;
- selecting a third party on a hierarchical third party list based on the activity of daily living for which the statistical change in the data counts relative expected data counts exceed the statistical threshold value, a level of statistical change in the data counts, and the confidence level; and
- initiating automated contact to the third party on the hierarchical third party list when the statistical based change exceeds the statistical threshold value.

From Applicant's review of the Rogers reference, Rogers appears to teach a method and apparatus for communicating with and monitoring the operation of a device implanted within a patient (Abstract). The patient monitoring system in Rogers uses an implanted sensor to transmit data related to medical device or condition of a patient (Column 3, lines 44-63), but does not use the implanted sensor data to determine a behavior routine. Rogers does not teach assigning a confidence level to the statistical change in the data counts relative expected data counts.

And, Applicant respectfully submits that the Ciccolo reference does not cure the deficiencies of the Rogers reference. Ciccolo appears to teach a system for monitoring behavior patterns with sensors that detect behavior patterns and activating a response based on the detected behavior pattern. (Column 2, lines 66 to column 3, line 7). The method in Ciccolo can compare a detected behavior pattern to a standard behavior pattern (Column 3, lines 12-17), but does not appear to teach assigning a confidence level to the identification of the change in the behavior routine.

Accordingly, Applicant respectfully submits that the Rogers and Ciccolo references do not teach or suggest, either individually or in combination, "determining a confidence level of the statistical change in the data counts relative expected data counts based on a comparison of data counts from a first group of the

number of sensors with data counts from one or more groups of the number of sensors”, as recited in amended independent claim 22.

As such, Applicant respectfully requests reconsideration and withdrawal of the § 103 rejection of independent claim 22, as well as those claims which depend therefrom.

Claim 28 was rejected under 35 USC § 103(a) as being unpatentable over Rogers (U.S. Patent No. 6,957,107) in view of Ciccolo (U.S. Patent No. 6,614, 348) further in view of Official Notice. Applicant respectfully traverses the rejection as follows.

Claim 28 depends from independent claim 22. As described above, Applicant respectfully submits that independent claim 22 is in condition for allowance.

With regard to the Official Notice, Applicant disputes Examiner’s use of Official Notice of the elements of the above referenced claim. Applicant respectfully requests that should Examiner continue to assert official notice, it is requested that Examiner provide support for such subject matter in the form of one or more references. Identifying a sensor that is not transmitting data counts based on the statistical change in the data counts of the sensor relative to expected data counts for the sensor is not old and well-known to one of ordinary skill in the art when used in the context of the independent claims from which they depend. The above reference elements of the claims are not a well known and old part of identifying when the statistical change in the data counts relative expected data counts exceed a statistical threshold value, as recited in independent claim 22. Also, the Official Notice recited does not cure the deficiencies of the Rogers and Ciccolo references regarding these elements among other details as claimed in independent claim 22, as amended.

Accordingly, Applicant respectfully submits that the Rogers and DeLuca references and the Official Notice do not teach or suggest, either individually or in

combination, “determining a confidence level of the statistical change in the data counts relative expected data counts based on a comparison of data counts from a first group of the number of sensors with data counts from one or more groups of the number of sensors”, as recited in independent claim 22.

As such, Applicant respectfully requests reconsideration and withdrawal of the § 103 rejections of dependent claim 28, which depends from independent claim 22.

**CONCLUSION**

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's below listed attorney at (612) 236-0124 to facilitate prosecution of this matter.

**CERTIFICATE UNDER 37 CFR §1.8:**

The undersigned hereby certifies that this correspondence is being electronically filed with the United States Patent and Trademark Office on this 30<sup>th</sup> day of June, 2011.

Name

Signature



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